Measureable wear tolerances for chain and bearings as related to Waltco Dominos liftgate components

Following information was supplied by Waltco vendors and was found to be generally accepted within the groups of vendors represented.

Regarding the Waltco GT/GTSL Sprocket tracking chain:

Chain Wear:
ANSI roller chain will elongate over time with normal wear at the pin/roller joints. Wear measurements can be made to determine if the chain has elongated to a length where replacement is necessary. To ensure accurate results, length measurements on roller chain must be done when the chain is in tension. If the chain is measured while still on the sprockets, the system must be turned off and all safety procedures must be followed. The tight span of the chain is the section that should be measured. The GTSL-33 uses #50 roller chain that has a 5/8 inch pitch between pins. Measure as closely as possible from the center of pin to the center of another. The more pitches (pins) contained within the measurement increase the accuracy. Count the number of pin spaces being measured and multiply the number of pitches by 0.625 to establish the "nominal" value. If the measured value exceeds the nominal by more than 3% the chain should be replaced.

Regarding the Waltco GT/GTSL Wheel Bearings:

Bearing Wear:
8 rollers carry the load of the liftgate as it tracks in and out from stowed to operation position. Each roller has a press fit fiber bearing. The fiber bearing is design to last for well over 100,000 in/out cycles in ideal conditions, however bearing life can be reduced by contamination and misalignment. Bearing wear can be detected by measuring the angular movement of the roller when rocked back/forth on its shaft. Inspect the roller's rotation on its shaft. The roller should spin freely by hand and should have very little play when rocked on its shaft. Place a digital protractor on the vertical surface of the roller and rock the shaft back/forth. If the total angular play exceeds 1.7 degrees, the roller should be replaced.

Regarding bearings used in conjunction with Pivot Pins:

In recent samples measured by a micrometer of new and worn arm and pin bearing, we have found that any wear exceeding 1/32” or .03125 will cause looseness and movement in the components. This will manifest itself by showing an obvious lean or pitch downward in the platform when raised to bed level. It may also be confirm by being able to twist and move an arm or cylinder when the platform is placed fully on the ground.